OIL MIST REMOVAL FROM CONTAMINATED AIRBORNE USING DRY POWER FROM BANANA STEM

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ABSTRACT

OIL MIST REMOVAL FROM CONTAMINATED AIRBORNE BY USING DRY POWDER BANANA STEM

In the present study the adsorption of oil mist from contaminated airborne on dry powder banana stem was studied. The adsorbent was characterized using infrared spectroscopy and scanning electron microscopy measurements. The effectiveness of banana stem has been studied in a function of contact with time. Infrared spectroscopy was used to confirm the binding the binding of oil mist with functional groups present in the adsorbent. SEM studies clearly said that, to have a rough surface and pores containing a new shiny and bulky particle. BSOM has less void space than BS, which is consistent with the BSOM sample having smaller pores, and therefore more specific surface area. The BSOM had a rather granular structure, whereas BS had a rigid and folded appearance. The capacity of concentration of oil mist was decrease from (30.4, 20.3, 13.2, 7.2, and 0.7) mg/m^3 as the concentration of oil mist (5, 90,120,170,200,250) mg/l. It has been shown that, percent in removing oil mist from contaminated airborne is increasing in significant change of decreasing of concentration oil mist. Banana stem found efficient in removal oil mist from contaminated airborne due to the percentage of removal (97.7%).